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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/796,249

Applicant(s)

OWARA ET AL.

Examiner

Kimberly Lovel

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is responsive to the amendment filed 20 September 2007.
2. Claims 1-41 are pending in the current application. Claims 1, 18, 35 and 39 are independent. In the amendment filed 20 September 2007, claims 1, 3, 11, 14, 18, 20, 28, 31 and 33 were amended. This action is made Non-Final.
3. The rejections of claims 1, 2, 9-10, 17-19, 26, 27, 34-36 and 38-40 are rejected under as being anticipated by US PGPub 2004/0010487 to Prahlad et al and of claims 3-6, 20-23, 37 and 41 are rejected as being unpatentable over US PGPub 2004/0010487 to Prahlad et al in view of US Patent No 6,434,681 to Armangau have been maintained. The rejections of claims 7, 8, 11-16, 24, 25, 28-33 as being anticipated by US PGPub 2004/0010487 to Prahlad et al have been withdrawn. The rejections of claims 42-48 have been added.

Claim Objections

4. The objections to **claims 1, 3, 11, 18, 21, 28 and 33** have been withdrawn as necessitated by applicants' amendment.

Claim Rejections - 35 USC § 112

The rejections of **claims 14 and 31** under 35 U.S.C. 112, second paragraph have been withdrawn as necessitated by applicants' amendment.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. The rejections of **claims 1-17** under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter have been withdrawn.
6. **Claims 39-41** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 39 is directed toward "a computer-readable medium including program instructions" and is non-statutory because the computer-readable medium encompasses subject matter and/or embodiments, which do not fall within a statutory category.

The meaning of "computer-readable medium" as disclosed in page 34, lines 23-25 of the specification covers non-statutory embodiments, which improperly include transmission media.

According to MPEP 2106:

There is always some form of physical transformation within a computer because a computer acts on signals and transforms them during its operation and changes the state of its components during the execution of a process. Even though such a physical transformation occurs within a computer, such activity is not determinative of whether the process is statutory because such transformation alone does not distinguish a statutory computer process from a nonstatutory computer process. What is determinative is not how the computer performs the process, but what the computer does to achieve a practical application. See *Arrhythmia*, 958 F.2d at 1057, 22 USPQ2d at 1036.

Since **claims 40 and 41** are dependent on claim 39, the claims are rejected on the same grounds as claim 39.

To allow for compact prosecution, the examiner will apply prior art to these claims as best understood, with the assumption that applicant will amend to overcome the stated 101 rejections.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 2, 9, 10, 17-19, 26-28, 34-36, 38-40, 42 and 44-48 are rejected under 35 U.S.C. 102(e) as being anticipated by US PGPub 2004/0010487 to Prahlad et al (hereafter Prahlad).

Referring to claim 1, Prahlad discloses a system for indexing and manipulating a set of backup data stored on a destination system interconnected with a source file system having source data from which the backup data is transmitted to the destination system (see abstract and [0051]) comprising:

a management application [snapshot manager] executed by a computer, where the management application (a) communicates with the destination system and that accesses data identifiers related to the backup data organized in a tree structure [directory frame which provides a hierarchical arrangement] and representing a plurality of persistent consistency point images (PCPIs) [snapshots] of the data, each with associated information related to creation time [date of creation] (see [0055], lines 10-19; [0061]; [0066]; and Fig 6) and (b) organizes the data identifiers into a structure that

enables the data to be displayed in a plurality of organizational formats (see [0061]; [0066]; Fig 6; [0067]; and Fig 7); and

a user interface that allows selective display of the data identifiers so that the backup data can be accessed and manipulated by a user in a desired organizational format (see Fig 6; Fig 7; and [0058]; lines 1-5).

Referring to claim 2, Prahlad discloses the system as set forth in claim 1 further comprising a database that stores the data identifiers and rules for handling the data identifiers for retrieval by the user interface and the management application (see [0036], lines 4-7).

Referring to claim 9, Prahlad discloses the system as set forth in claim 1 wherein the desired organizational format includes a listing of backup data entries all having a selected data structure (see [0066]; Fig 6; and Fig 7).

Referring to claim 10, Prahlad discloses the system as set forth in claim 9 wherein the data structures include at least one of either a directory or a file (see [0066]; Fig 6; and Fig 7).

Referring to claim 17, Prahlad discloses the system as set forth in claim 1 further comprising, in the user interface, a screen that enables selected of the source data to be listed as entries and to be transmitted as backup data to the destination system at a time separate from a scheduled backup time (see [0049], lines 20-26).

Referring to claim 18, Prahlad discloses a method for indexing and manipulating a set of backup data stored on a destination system interconnected with a

source file system having source data from which the backup data is transmitted to the destination system (see abstract and [0051]) comprising:

communicating, by a management client [snapshot manager], with the destination system and accessing data identifiers related to the backup data organized in a tree structure [directory frame which provides a hierarchical arrangement] and representing a plurality of persistent consistency point images (PCPIs) [snapshots] of the data, each with associated information related to creation time [date of creation] (see [0055], lines 10-19; [0061]; [0066]; and Fig 6) and organizing the data identifiers into a structure that enables the data to be displayed in a plurality of organizational formats (see [0061]; [0066]; Fig 6; [0067]; and Fig 7); and

selectively displaying, on a user interface, the data identifiers so that the backup data can be accessed and manipulated by the user in a desired organizational format (see Fig 6; Fig 7; and [0058]; lines 1-5).

Referring to claim 19, Prahlad discloses the method as set forth in claim 18 further comprising a database that stores the data identifiers and rules for handling the data identifiers for retrieval by the user interface and the management application (see [0036], lines 4-7).

Referring to claim 26, Prahlad discloses the method as set forth in claim 18 wherein the desired organizational format includes a listing of backup data entries all having a selected data structure (see [0066]; Fig 6; and Fig 7).

Referring to claim 27, Prahlad discloses the method as set forth in claim 26 wherein the data structures include at least one of either a directory or a file (see [0066]; Fig 6; and Fig 7).

Referring to claim 28, Prahlad discloses the method as set forth in claim 25 wherein the desired organizational structure includes a listing of backup data entries indexed by a backup date and time (see [0066]; Fig 6; and Fig 7).

Referring to claim 34, Prahlad discloses the method as set forth in claim 18 further comprising, in the user interface, a screen that enables selected of the source data to be listed as entries and to be transmitted as backup data to the destination system at a time separate from a scheduled backup time (see [0049], lines 20-26).

Referring to claim 35, Prahlad discloses a method for managing backup of data from a source system to a destination system and restore of backup data, relative to source data, from the source system to the destination system (see [abstract and [0051]) comprising:

communicating, by a management application [snapshot manager], with each of the source system and the destination system and transmitting requests to read a data organization residing on each of the source system and the destination system to derive a structure of data identifiers for the data organization each of the source system and the destination system (see [0055], lines 10-19; [0061]; [0066]; and Fig 6); and

displaying, with a user interface communicating with the management application, selected information related to active data on the source system derived from source system data organization identifiers related to active data and selected

information related to backup data on the destination system derived from destination system data identifiers related to persistent consistency point images (PCPIs) [snapshots] transmitted from the source data during backup operations (see Fig 6; Fig 7; [0058], lines 1-5 and [0066]).

Referring to claim 36, Prahlad discloses the method as set forth in claim 35 wherein the data organization comprises a directory and file structure including directory roots (see [0066]; Fig 6; and Fig 7).

Referring to claim 38, Prahlad discloses the method as set forth in claim 36 further comprising activating user interface buttons associated with entries of the displayed selected information to conduct either of a backup operation and a restore operation with respect to the entries (see Fig 7 and [0069]-[0071]).

Referring to claim 39, Prahlad discloses a computer-readable medium including program instructions for managing backup of data from a source system to a destination system and restore of backup data, relative to source data, from the source system to the destination system (see [abstract and [0051]], the program instructions comprising:

communicating, by a management application [snapshot manager], with each of the source system and the destination system and transmitting requests to read a data organization residing on each of the source system and the destination system to derive a structure of data identifiers for the data organization each of the source system and the destination system (see [0055], lines 10-19; [0061]; [0066]; and Fig 6); and

displaying, with a user interface communicating with the management application, selected information related to active data on the source system derived

from source system data organization identifiers related to active data and selected information related to backup data on the destination system derived from destination system data identifiers related to persistent consistency point images (PCPIs) [snapshots] transmitted from the source data during backup operations (see Fig 6; Fig 7; [0058], lines 1-5 and [0066]).

Referring to claim 40, Prahlad discloses the computer-readable medium as set forth in claim 39 wherein the data organization comprises a directory and file structure including directory roots (see [0066]; Fig 6; and Fig 7).

Referring to claim 42, Prahlad discloses a system, comprising:

a source storage system that generates a plurality of persistent consistency point images (PCPIs), and transfers the plurality of PCPIs and data to a destination storage system (see [0051]; [0055]; [0061]; and [0066]);

the destination storage system executes a management client, where the management client organizes the plurality of PCPIs and the data into an index using a database to allow the plurality of PCPIs and the data to be displayed in a plurality of organizational formats (see [0036], lines 4-7; [0058]; [0066]; and [0067]).

Referring to claim 44, Prahlad discloses the system of claim 42, further comprising: an application on the source storage system selecting a PCPI for backup from the index (see [0048]).

Referring to claim 45, Prahlad discloses the system of claim 42, further comprising: an interface that allows selective display of the plurality of PCPIs so that the backup data can be accessed and manipulated by a user in a selected organizational

format from the plurality of organizational formats (see Fig 6; Fig 7; and [0058], lines 1-5).

Referring to claim 46, Prahlad discloses the system of claim 42, wherein the database stores the plurality of PCPIs and rules for handling the plurality of PCPIs for retrieval by the interface and the management client (see [0036], lines 4-7).

Referring to claim 47, Prahlad discloses the system of claim 42, wherein the source storage system upon initialization sends a base PCPI and data to the destination storage system (see [0036]).

Referring to claim 48, Prahlad discloses the system of claim 42, further comprising a scheduler that interfaces with the source storage system and performs backup operations of transmitting backup data including one or more PCPIs and change data from the source storage system to the destination storage system at a predetermined time interval (see [0049]; Fig 6; and Fig 7).

Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 8. Claims 3-6, 20-23, 37 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2004/0010487 to Prahlad et al as applied respectively to claims 2, 19, 36 and 39 above, and further in view of US Patent No 6,434,681 to Armangau (hereafter Armangau).**

Referring to claim 3, Prahlad discloses communication with the destination storage system, however, Prahlad fails to explicitly disclose the further limitation of a network data management protocol extension. Armangau discloses indexing snapshots (see abstract), including the further limitation of in the destination storage system, a network data management protocol (NDMP) extension, communicating with a storage operating system of the destination storage system and providing NDMP based communication between the management application and the storage operating system (see column 9, line 46 – column 10, line 21 and column 17, lines 40-52) since NDMP is a standard which facilitates the partitioning of the backup problem between backup software vendors, server vendors, and network-attached storage vendors in such a way as to minimize the amount of host software for backup.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the NDMP extension disclosed by Armangau to provide the communication disclosed by Prahlad. One would have been motivated to do so since NDMP is a standard, which facilitates the partitioning of the backup problem between backup software vendors, server vendors, and network-attached storage vendors in such a way as to minimize the amount of host software for backup (Armangau: see column 1, lines 48-62).

Referring to claim 4, the combination of Prahlad and Armangau (hereafter Prahlad/Armangau) discloses the system as set forth in claim 3 further comprising a job framework that organizes a plurality of backup operations and restore operations by the management application and that communicates with the user interface so as to enable a user to access information with respect to status of the backup operations and restore operations organized by the job framework (Prahlad: see Fig 6 and 7).

Referring to claim 5, Prahlad/Armangau discloses the system as set forth in claim 4 further comprising a scheduler that interfaces with the source system and that performs the backup operations, transmitting the backup data from the source system to the destination system at a predetermined time interval (Prahlad: see [0049]; Fig 6; and Fig 7).

Referring to claim 6, Prahlad/Armangau discloses the system as set forth in claim 5 wherein the user interface includes a screen that enables a user to set a desired lag time after which failure to complete a scheduled backup operation caused an event to occur (Prahlad: see [0049]; Fig 6; and Fig 7).

Referring to claim 20, Prahlad discloses communication with the destination storage system, however, Prahlad fails to explicitly disclose the further limitation of a network data management protocol extension. Armangau discloses indexing snapshots (see abstract), including the further limitation of in the destination storage system, a network data management protocol (NDMP) extension, communicating with a storage operating system of the destination storage system and providing NDMP based communication between the management application and the storage operating system (see column 9, line 46 – column 10, line 21 and column 17, lines 40-52) since NDMP is a standard which facilitates the partitioning of the backup problem between backup software vendors, server vendors, and network-attached storage vendors in such a way as to minimize the amount of host software for backup.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the NDMP extension disclosed by Armangau to provide the communication disclosed by Prahlad. One would have been motivated to do so since NDMP is a standard, which facilitates the partitioning of the backup problem between backup software vendors, server vendors, and network-attached storage vendors in such a way as to minimize the amount of host software for backup (Armangau: see column 1, lines 48-62).

Referring to claim 21, Prahlad/Armangau discloses the method as set forth in claim 20 further comprising a job framework that organizes a plurality of backup operations and restore operations by the management application and that communicates with the user interface so as to enable a user to access information with

respect to status of the backup operations and restore operations organized by the job framework (Prahlad: see Fig 6 and 7).

Referring to claim 22, Prahlad/Armangau discloses the method as set forth in claim 21 further comprising a scheduler that interfaces with the source system and that performs the backup operations, transmitting the backup data from the source system to the destination system at a predetermined time interval (Prahlad: see [0049]; Fig 6; and Fig 7).

Referring to claim 23, Prahlad/Armangau discloses the method as set forth in claim 22 wherein the user interface includes a screen that enables a user to set a desired lag time after which failure to complete a scheduled backup operation caused an event to occur (Prahlad: see [0049]; Fig 6; and Fig 7).

Referring to claim 37, Prahlad discloses communication with the destination storage system, however, Prahlad fails to explicitly disclose the further limitation of a network data management protocol extension. Armangau discloses indexing snapshots (see abstract), including the further limitation wherein the steps of communicating and transmitting include formatting information into a network data management protocol (NDMP) (see column 9, line 46 – column 10, line 21 and column 17, lines 40-52) since NDMP is a standard which facilitates the partitioning of the backup problem between backup software vendors, server vendors, and network-attached storage vendors in such a way as to minimize the amount of host software for backup.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the NDMP extension disclosed by Armangau to provide the

communication disclosed by Prahlad. One would have been motivated to do so since NDMP is a standard, which facilitates the partitioning of the backup problem between backup software vendors, server vendors, and network-attached storage vendors in such a way as to minimize the amount of host software for backup (Armangau: see column 1, lines 48-62).

Referring to claim 41, Prahlad discloses communication with the destination storage system, however, Prahlad fails to explicitly disclose the further limitation of a network data management protocol extension. Armangau discloses indexing snapshots (see abstract), including the further limitation wherein the steps of communicating and transmitting include formatting information into a network data management protocol (NDMP) (see column 9, line 46 – column 10, line 21 and column 17, lines 40-52) since NDMP is a standard which facilitates the partitioning of the backup problem between backup software vendors, server vendors, and network-attached storage vendors in such a way as to minimize the amount of host software for backup.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the NDMP extension disclosed by Armangau to provide the communication disclosed by Prahlad. One would have been motivated to do so since NDMP is a standard, which facilitates the partitioning of the backup problem between backup software vendors, server vendors, and network-attached storage vendors in such a way as to minimize the amount of host software for backup (Armangau: see column 1, lines 48-62).

9. **Claims 7, 8, 11-16, 24-33 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2004/0010487 to Prahlad et al as applied respectively to claims 1, 18 and 42 above, and further in view of US PGPub 2003/0131207 to Arakawa et al (hereafter Arakawa).**

Referring to claim 7, while Prahlad discloses a plurality of organizational formats, Prahlad fails to explicitly disclose the further limitation wherein the desired organizational format includes at least each of (a) a listing of source data entries indexed by names of the source system and (b) a listing of source data entries indexed by names of directories of the source system, and (c) a listing of source data entries indexed by names of volumes of the destination system in which the backup data from the source data resides. Arakawa discloses storing snapshot management information (see abstract), including the further limitation of wherein the desired organizational format includes at least each of (a) a listing of source data entries indexed by names of the source system and (b) a listing of source data entries indexed by names of directories of the source system, and (c) a listing of source data entries indexed by names of volumes of the destination system in which the backup data from the source data resides (see Fig 11; and [0086]-[0088]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the information in the table of Arakawa with the information collected by Prahlad when indexing the snapshots to display information about the snapshots to the user. One would have been motivated to do so in order to increase efficiency of selecting a snapshot by listing all relevant information.

Referring to claim 8, the combination of Prahlad and Arakawa (hereafter Prahlad/Arakawa) discloses the system as set forth in claim 7 wherein each of the entries of each listing includes a browse backups button that enables a user to view backup data stored on the destination system that is associated respectively with each of the entries (see [0066]; Fig 6; and Fig 7).

Referring to claim 11, Prahlad/Arakawa discloses the system as set forth in claim 8 wherein the desired organizational format includes a listing of backup data entries indexed by a backup date and time (see [0066]; Fig 6; and Fig 7).

Referring to claim 12, Prahlad/Arakawa discloses the system as set forth in claim 11 wherein each of the entries of each listing includes a restore button that enables a user to view restorable backup data structures with respect to each of the entries and to restore the backup data structures to the source data (see [0069] and Fig 7).

Referring to claim 13, Prahlad/Arakawa discloses the system as set forth in claim 12 wherein the backup data structures include files and directories (see [0066]; Fig 6; and Fig 7).

Referring to claim 14, Prahlad/Arakawa discloses the system as set forth in claim 12 wherein the data structures include qtree relationships with respect to other qtrees within the source system (see [0066], lines 1-9).

Referring to claim 15, Prahlad/Arakawa discloses the system as set forth in claim 14 wherein the user interface includes a command for destroying a qtree

relationship between the source data and a selected volume of the backup data in the destination system (see [0066]; [0055], lines 17-19; [0069] and Fig 7).

Referring to claim 16, Prahlad/Arakawa discloses the system as set forth in claim 15 wherein the management application is adapted to delete a respective qtree associated with the qtree relationship on the destination system in response to activation of the command for destroying (see [0066]; [0055], lines 17-19; [0069] and Fig 7).

Referring to claim 24, while Prahlad discloses a plurality of organizational formats, Prahlad fails to explicitly disclose the further limitation wherein the desired organizational format includes at least each of (a) a listing of source data entries indexed by names of the source system and (b) a listing of source data entries indexed by names of directories of the source system, and (c) a listing of source data entries indexed by names of volumes of the destination system in which the backup data from the source data resides. Arakawa discloses storing snapshot management information (see abstract), including the further limitation of wherein the desired organizational format includes at least each of (a) a listing of source data entries indexed by names of the source system and (b) a listing of source data entries indexed by names of directories of the source system, and (c) a listing of source data entries indexed by names of volumes of the destination system in which the backup data from the source data resides (see Fig 11; and [0086]-[0088]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the information in the table of Arakawa with the information

collected by Prahlad when indexing the snapshots to display information about the snapshots to the user. One would have been motivated to do so in order to increase efficiency of selecting a snapshot by listing all relevant information.

Referring to claim 25, Prahlad/Arakawa discloses the method as set forth in claim 24 wherein each of the entries of each listing includes a browse backups button that enables a user to view backup data stored on the destination system that is associated respectively with each of the entries (see [0066]; Fig 6; and Fig 7).

Referring to claim 28, Prahlad/Arakawa discloses the method as set forth in claim 25 wherein the desired organizational format includes a listing of backup data entries indexed by a backup date and time (see [0066]; Fig 6; and Fig 7).

Referring to claim 29, Prahlad/Arakawa discloses the method as set forth in claim 28 wherein each of the entries of each listing includes a restore button that enables a user to view restorable backup data structures with respect to each of the entries and to restore the backup data structures to the source data (see [0069] and Fig 7).

Referring to claim 30, Prahlad/Arakawa discloses the method as set forth in claim 29 wherein the backup data structures include files and directories (see [0066]; Fig 6; and Fig 7).

Referring to claim 31, Prahlad/Arakawa discloses the method as set forth in claim 30 wherein the data structures include qtree relationships with respect to other qtrees within the source system (see [0066], lines 1-9).

Referring to claim 32, Prahlad/Arakawa discloses the method as set forth in claim 31 wherein the user interface includes a command for destroying a qtree relationship between the source data and a selected volume of the backup data in the destination system (see [0066]; [0055], lines 17-19; [0069] and Fig 7).

Referring to claim 33, Prahlad/Arakawa discloses the method as set forth in claim 32 wherein the management application is adapted to delete a respective qtree associated with the qtree relationship on the destination system in response to activation of the command for destroying (see [0066]; [0055], lines 17-19; [0069] and Fig 7).

Referring to claim 43, while Prahlad discloses a plurality of organizational formats, Prahlad fails to explicitly disclose the further limitation wherein the desired organizational format includes at least each of (a) a listing of source data entries indexed by names of the source system and (b) a listing of source data entries indexed by names of directories of the source system, and (c) a listing of source data entries indexed by names of volumes of the destination system in which the backup data from the source data resides. Arakawa discloses storing snapshot management information (see abstract), including the further limitation of wherein the desired organizational format includes at least each of (a) a listing of source data entries indexed by names of the source system and (b) a listing of source data entries indexed by names of directories of the source system, and (c) a listing of source data entries indexed by names of volumes of the destination system in which the backup data from the source data resides (see Fig 11; and [0086]-[0088]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the information in the table of Arakawa with the information collected by Prahlad when indexing the snapshots to display information about the snapshots to the user. One would have been motivated to do so in order to increase efficiency of selecting a snapshot by listing all relevant information.

Response to Arguments

10. Applicant's arguments filed in regards to the 35 USC 101 rejections of claims 39-41 have been fully considered but they are not persuasive. The applicants argue that "Claim 39 is to a computer readable medium, for example a disk etc." However, the specification states that the storage device can be a disk and just merely states it as an example. The specification fails to explicitly state that the computer readable medium is a disk. Therefore, the scope of a computer readable medium covers more than just disks.

11. Applicant's arguments with respect to claim 1 found on page 14 of the Remarks have been fully considered but they are not persuasive. Prahlad organizes the information in a plurality of folders which are located in a hierarchy. Each folder allows the user to view the information in a different manner. When giving the claim limitation the broadest reasonable interpretation, the phrase "organizational formats" is not limited to the three list depicted in claim 7.

12. Applicant's arguments with respect to claims 7 and 24 have been considered but are moot in view of the new ground(s) of rejection. On page 14 of the Remarks, The

applicants' state "The plurality of organizational formats include (a) ..., (b) ... and (c)."

This limitation is found in dependent claims 7 and 24 and not in the independent claims.

13. For the reasons above, the rejections of claims 2-6, 9-10, 17, 18-23, 26-27 and 34-41 are also maintained.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Lovel whose telephone number is (571) 272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Examiner
Art Unit 2167

9 December 2007
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Page 25